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ABSTRACT

Initial general discussion of reading and writing is followed by discussions focusing on the process of learning to read, methods and texts, and ways to promote reading. The topic of the way one learns to read is addressed in terms of: (1) a definition of "knowing how to read"; (2) the distinction between teaching and learning; and (3) basic aspects of written and spoken language, including relations between sound and writing, and the structure of spoken and written language, words, and sentences. The process of learning to read is discussed in terms of social, emotional, and perception-related factors, and research on learning to read is examined. Both learner-centered methods and methods based on the written code, such as synthetic, analytic, and hybrid-eclectic methods, are discussed. Reading textbooks and textbook criticisms are considered. Guidelines for the promotion of reading focus on reading at different ages and in various contexts. Particular emphasis is placed on preliteracy, literacy, and postliteracy teaching. Concluding discussion briefly describes experiments around the world aimed at making reading a social practice and a factor contributing to national development. (RH)

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CHILDREN
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LEARNING TO READ...
THE REASONS

1989 - N° 183

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INTERNATIONAL CHILDREN'S CENTRE – PARIS

The International Children's Centre was created by the French government in 1949, on the initiative of Professor Robert Debré in particular, following negociations between France and the United Nations. Its purpose was to furnish those international and national agencies dealing specifically with child care with training facilities and educational and informational tools in the field of child health and development, viewing children within their family and surroundings.

ICC soon turned essentially toward Third World children and devoted its activities to the training and education of personnel with social, educational and administrative responsabilities as well as medical and paramedical workers. The desire for greater efficiency has led it to work increasingly with trainers and to concentrate its efforts on the methodological and educational aspects of mother and child care programmes.

ICC is also engaged in an attempt to further study — and — action on some aspects of the life and health of children and their family, so as to contribute to practical improvement, particularly in the fields of growth, nutrition, planned parenthood, the control of transmissible and nutritional diseases, preschool and school education, the needs of disabled and underprivileged children, etc.

Over this period of more than 30 years, a large amount of documents on children and adolescents, mostly from the developing countries, has been accumulated. This international documentation has been classified and sorted out, and has been computerized since 1983 : a bibliographic data base (BIRD : « Base d'Informations Robert Debré ») may be consulted anywhere in the world, through international communications networks. ICC also publishes periodicals, educational documents and specialized bibliographic bulletins.

As for its legal status, the International Children's Centre is a foundation under french law of recognized public utility, administered by an executive board with broad international membership.

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CHILDREN
IN THE TROPICS

REVIEW OF THE INTERNATIONAL CHILDREN'S CENTRE

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LEARNING TO READ... THE REASONS

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1989 - N° 183

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- Grandir et s'épanouir en République populaire du Bénin : l'expérience des centres d'éveil et de stimulation de l'enfant - CESE. République populaire du Bénin. Centre International de l'Enfance, Paris, 1985.

- Afrique... Jeunes enfants et développement. CIE/UNICEF, Abidjan, October 1988.

- The Early Childhood Development Centres in Benin. UNESCO/UNICEF/WFP. Notes, Comments, N 181, Paris, March 1988.

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WHAT IS READING ?

READING-AND-WRITING

A social practice

Reading-and-writing is a universal social practice, but one that is unevenly distributed around the world.

When a child is born, he or she enters into a world of writing. Social life rests on recorded written acts, the first of which is the birth certificate, which establishes each individual's identity. Written documents will be present throughout the child's life, since there is practically no society in which the administration does not use written documents. However, the child may encounter only a few written documents, or a great many of these, and will view them differently depending on his or her environment. The writings will take different forms, and will probably change in nature as time goes by.

Reading-and-writing is a universal social and cultural practice, but it is not viewed as equally important by all cultures and in all social contexts.

In societies where culture is traditionally transmitted orally, writing is not often present in everyday life, especially in rural settings, and for some children the first opportunity for contact with writing is provided by school, and a literate teacher, when they are lucky enough to attend it. For many of these children, written language will be something you learn at school, and will have no reality of its own.

The situation is quite different in industrialized countries, of course, where the written word is present everywhere and children are in contact with it from infancy ; it tends to be as important as speech. It is present in all everyday activities, such as reading instructions, selecting a television programme, getting off the subway at the right station, etc.

As an activity, reading-and-writing is not equally practiced ; reading is more frequent than writing. The need to read has been multiplied by the development of computers and of telematics, and it is more difficult to limit one's reading activities than one's writing activities. A telephone call may replace a letter, if necessary, but to make a call from a card-run computerized telephone one must know how to read. An automatic cash distributor may spare one the need to fill out and sign cheques, but to use it one must be able to read.

Varied media, numerous purposes

Reading-and-writing is practiced in a number of different forms, on a variety of media and for many reasons. An adult reading a book to a child at bedtime, a schoolchild deciphering a letter from a pen-pal, a child enjoying reading a cartoon, a religious person deep in a sacred book, a job-seeker reading the employment notices, a student looking up a word in a dictionary or an address in a computerized telephone book, as well as a speaker reading a speech, are all doing the same thing : they are reading.

Reading may be done in many ways : alone, by two people, within a family or a group. The surfaces on which writing is placed change, and increase in number as techniques and needs are modified.

They range from scraps of paper for scribbling to handbills, posters, newspapers, prestigious books for collectors, blackboards or computer screens.

The functions of writing are countless : to amuse, inform, record for memory, cultivate, encourage thought and meditation. Regardless of the function, reading is never done for its own sake, but as a means of finding information, the sense of which depends on the reader's project.

Ordinary reading situations include following instructions for assembling a machine, glancing through a newspaper to learn the day's news, reading or rereading "Les Misérables", "Gone with the Wind" or "War and Peace" to discover or rediscover the characters, emotions and story, consulting a map to locate a country or a city, reading aloud a poem one loves, to share it with someone else, flitting through screens covered with writing or consulting a file in a data bank or a library to find the reference for a work. Each of these situations is part of a different project : "doing something", "seeking information", "getting enjoyment", etc.

They also correspond to different ways of reading. Following instructions requires reading one sentence after another, in sequence with the action described. Reading a newspaper is different from reading a novel. It may be selective, and limited to reading the titles of articles, or paying attention to pictures or to certain topics such as sports, politics, etc. The reader may go in any direction, beginning with the last page, or the middle of the paper. Novels must be read from the beginning to the end, if the sense of the action is to be understood. Certain passages may be read rapidly or even skipped, or read over and over again. The reader may progress rapidly, anxious to find out what happens next, or he or she may stop from time to time, to think or to daydream : this all depends on the book and on the reader. Locating a specific place on a map requires visual scanning, to find the area or the point one is looking for, and the place name.

Many reading activities are done silently, but in the case of poetry, the magic of the words and the pleasure of the ear can only be brought out by reading aloud.

Looking for a reference in a data bank is part of the process of written communication. Reading can only be done after the key words are typed on the keyboard, bringing the words lodged in the computer memory to the screen.

Different projects, different types of reading, with or without manipulations, depending on the medium : there is not one single way to read, but thousands of ways to read, depending on the situation.

Different uses and different representations

Distinguishing the many uses of reading does not imply that there is a hierarchy between the different functions of written language, with, on the one hand, "utilitarian" reading, which is increasingly important in every aspect of daily life, and on the other hand "intellectual" or "cultural" reading, which provides access to available, comprehensible knowledge, to rational and scientific thought and to aesthetic

emotions. Reading is basically a technique which opens the door to the written word, but it is also a social practice, which differs from one individual to another.

Each person uses it according to his or her representations, needs and competency, as well as his or her view of its role. There are different ways of looking at and considering written language. The printed word may just as well be viewed as absolutely ordinary, as a nuisance, or as a cause of complications, inspiring fear. A newspaper may be more important as wrapping paper than as a source of information. The medium most closely linked with the cultural environment is the book. For some people it is a familiar object, a necessary tool to which one refers constantly, an ordinary consumer good that may be bought at the supermarket along with one's groceries. For others, it is something expensive, excluded, synonymous with boredom and loss of time, something that is out of reach, in the realm of the forbidden.

Books may sometimes be viewed as sacred, and be connected with certain religious rites and high-ranking individuals. They have an immense symbolic power. They represent religion, wisdom, education, school, knowledge. In some cases they are simply on display : they are not used, but are a part of the scenery. Their owner has the impression of attaining a certain status by their presence. They may also be read in private, and hidden. Popular reading habits are strongly marked by the dominant culture, even if they have their own peculiarities. When judging what they read, people usually are depreciative of themselves, with respect to the elite. It is not unusual to hear someone express justifications for reading a magasine or a book labelled "minor" by him or herself.

Each culture passes judgement on what is worthwhile reading. Public opinion as well as influential political, religious and economic agents, exert all sorts of pressures and censorship. Buying the latest fashionable novel does not mean that one will read it. Often the writings of the great, universal thinkers and writers simply decorate people's bookshelves, whereas many books are read but kept out of sight and never mentioned.

How a written document is viewed also depends on its presentation and on the reader's abilities : a pleasantly illustrated album with little text is more attractive for an inexperienced, slow reader than a thick book with no pictures, and tiny, closely spaced print. Some writings are dissuasive by their very appearance, others by their content. It is not enough that a subject be attractive, the language used must also be comprehensible.

Differences in performance

All readers are not equally competent with respect to ease and speed of reading, degree of understanding of the subjects dealt with, language aptitudes and capacity for imagination and abstraction. All people with equal aptitudes do not read at the same level. In fact, all texts are not legible at the same level.

A novel may be read for the action only. At a different level, the style — the progression of events, the construction and sequence of sen-

tences and the choice of words — may be the centre of attention. At still another level, it may incite thought on the problems raised, the behaviour of characters, etc.

Each reader lends his or her own images and meanings to words, giving a specific sense to a text in accordance with his or her personal life and experience with writings. Individual expectations and the greater or lesser accessibility of the text result in different involvement for each reader. Reading may go far beyond the words themselves ; some writings take the reader on a long journey, at the time or long afterward. The permanence of writing unifies time differently from present reality. It makes it possible to take some distance with respect to the ideas expressed, to check on their truth, to detect contradictions. It helps one to develop a critical mind, and a personal opinion.

But readers do not necessarily succeed in achieving this detachment from texts, for lack of sufficient proficiency in reading. Many people toil over reading, putting all of their energy into discovering the meaning of the signs and letters. For this reason they read little, and this prevents them from improving their skills. The more one reads the more progress one makes. When the difficulties disappear, the mind is freed. This is why utilitarian reading is doubly important, and should not be looked down upon. Its omnipresence encourages constant practice, which develops the reader's capacities. It leads from material autonomy to intellectual freedom. Proficiency in reading gives access to knowledge and to freedom. Reading enriches one's language, and simultaneously develops inner language ; that is, the possibility of representation and abstraction, and therefore of thought.

A cultural and educational priority

Reading-and-writing is a cultural and educational priority imposed on children entering primary schools in all industrialized and developing countries. Learning of this skill is most important since all other types of learning are based on it. This is an all-important stage, conditioning successful schooling. In many school systems, children are systematically taught to read in one year, while in others this process takes 2 or 3 years.

Being left behind in the form or forms in which one learns to read is a major factor in children's educational fate. Studies have shown that the earlier the repetition of the year in the same form is located in the child's school career, the less chance he or she has of pursuing an education. Rates of repeated forms and children's age are some of the most significant factors in academic success or failure, particularly when they occur early in the schooling process.

Since "learning to read" measures success at school, and in a broader sense, social and professional success, it produces many reactions among families, teachers, research workers and politicians. It is surrounded by differing values, attitudes and expectations. Occasionally it leads families and institutions to push children at a very early age. It results in an inflated production of more or less sophisticated educational materials and methods, among which it is difficult to distinguish what is indispensable or relevant. It produces doctrinal

quarrels between research workers in different fields and educators. It extends far beyond the framework of schools, and calls upon specialists such as paediatricians, psychologists, speech therapists and specialists in psychomotor rehabilitation to overcome difficulties linked with this learning process. On a broader scale, many governments and international organizations have set up programmes both in industrialized countries and in the Third World, to promote reading-and-writing and make it accessible to those who have been deprived of it up to now.

The innumerable activities touching on reading confirm the importance of "knowing how to read" for individual fulfillment and the development of societies. Without the written word there is no past, the present is increasingly difficult to deal with, and the future seems to be compromised.

HOW DOES ONE LEARN TO READ ?

WHAT DOES KNOWING HOW TO READ MEAN ?

While there is a consensus on the need to "know how to read", people disagree on what is behind that concept, and on how this skill may be acquired.

A century ago, "knowing how to read" meant being able to decipher some written words, and many people still have that idea. At the present time, the profusion of situations in which each individual encounters written language has generated a definition of "knowing how to read" as the ability to implement reading strategies that are effective and appropriate to a great variety of contexts.

A competent reader should be capable of reading increasing amounts of text increasingly rapidly in order to take advantage of all of the written documents at his disposal, and to achieve autonomy.

The definition of "knowing how to read" is primordial, since it conditions the objectives set for learning and the means developed to attain them.

TEACHING OR LEARNING ?

Many people view teaching and learning as the same thing. Learning is the effort made by the learner. Teaching is the action of transmitting knowledge and of helping a person to learn. This distinction has educational implications, since it indicates opposite conceptions of the very act of reading.

For many years reading was conceived almost exclusively as a subject taught as a system for coding/decoding language and which makes it possible to go from alphabetic signs – in the case of French, English, Spanish, Russian or Arab, for instance – to sounds, and vice versa. Reading was viewed as a form of knowledge, the transmission of which was based on the analysis of the object of learning : writing. The word writing is used here in the sense of a written representation of thought, and not the act of drawing a sign.

At present, the act of reading is no longer seen as a form of knowledge to be taught, but as something to be constructively learned. It is in no way different from other types of learning processes. The apprentice reader plays a preeminent role, which does not consist primarily of storing or memorizing information. He or she follows a personal course, determined by his or her own strategies.

The teacher plays the role of mediator between the written word and the apprentice reader. Science shows that reading is an extremely complex activity. Many factors contribute to this learning process : the written language itself, the learner as an individual, with specific psychological, sensory, motor and cognitive aptitudes, and as a human being with a personal emotional life, and living in a social framework.

Learning methods are important, as well as the written documents used, and the context in which they are employed.

WRITTEN LANGUAGE

Reading is a language-related activity. The act of reading is a part of communication, which implies that the reader must have access to meaning. Writing is also a language-related activity, through which a person sets forth his or her thoughts or transmits information through a transcription from spoken language. Reading therefore supposes a degree of familiarity with written language — that is, with the language itself, and with the system underlying the possibility of existence of a written form. In the case of English, French and many other languages, this system is alphabetical. It is composed of an unchanging code : the shape of signs (letters, figures, punctuation signs), the orientation (upward and downward), the direction. The direction of writing is linear. Words follow each other on a real or imaginary line, from left to right. In the case of English or French, for instance, the lines are placed one after the other, starting at the top and ending at the bottom of the different materials on which one writes.

These conventional signs and rules cannot generate new signs or new forms of writing. There are a number of alphabets (Greek, Hebrew, Arab, Russian, etc). The number of letters in any given alphabet is set once and for all, and no new letters can be created. The English alphabet has twenty-six letters. With the exception of a few letters (a in English, a and y in French and Spanish), which are also words in that language, these units have no meaning of their own.

There is an infinite number of combinations of letters in any alphabet, but all of these combinations are not necessarily a part of the linguistic system of a given language. HW or ZT are not meaningful groups of letters in the English language, for instance.

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Each language may be viewed as a conventional combinatorial system (an arrangement) with a finite number of basic units, meaningless in themselves, but capable of generating an infinite number of meaningful expressions (utterances).

Phonemes

In the case of spoken languages, the unit of sound — that is, the smallest meaningful units of sound that differentiate two words — are phonemes. For example, [b] and [g], which differentiate 'boat' and 'goat', are phonemes.

Phonemes vary from one language to another. The English language has forty-four, and French thirty-six. These include vowels, consonants and semi-vowels or semi-consonants. Signs are used to transcribe them. There is an international phonetic alphabet, which makes it possible to create a written form for languages with an exclusively oral tradition.

Words

The meaningful units are words. They are the units of first articulation of a language, the units of second articulation being the phoneme or phonemes of which words are composed. An isolated word does not have a specific meaning, however. Meaning is refined by utilization. Each word derives its meaning from the context in which it is used, and from the words that go before and after it. The sentence or phrase of which it is a part contributes to giving it a fuller meaning. When the word "plan" is read or pronounced, for example,

one has only a vague idea of what it means, since it may be a verb or a noun. If an article, "the", is placed in front of it, the ambiguity is partially removed, since there is no longer any doubt that it is a noun. It may still have a variety of meanings, however : is it a plan for a trip, a payment plan, a building plan, or the plan of a city ? As the statement (spoken or written) progresses — "the plan for a two-week trip to North Africa", for instance — the meaning of the word plan is increasingly explicit.

Syllables

Midway between words and phonemes, there are syllables. These are a combination of vowels and consonants (in other words, of phonemes) and are pronounced in a single utterance. They have no meaning of their own, and in ordinary conversation are only perceivable by the speaker. Their importance in the process of understanding a language varies from one language to another. It is considerable for French and Japanese, and less so for English, in which the part of the word that is accented is a more important indicator than the syllable.

All of the phonemes pronounced by a speaker are not perceived by the listener. Nor is there any obvious discrimination of words or of their division into sentences. Syllables are no more easily perceived by the eye than words are perceived by the ear.

SPOKEN LANGUAGE/ WRITTEN LANGUAGE

While oral languages may be transcribed, using phonetic signs, most languages possess both an oral and a written form. These two forms are usually not exactly superposable, either in the relation between sounds and writing, or in their structures, except in the case of reading aloud. For any given language, there are differences between spoken language and written language. The relations between the spoken and the written forms differ from one language to another.

Relations between sound and writing

Graphemes

Spoken language is a temporal sequence of sounds, whereas written language may be seen as a spatial sequence (on a surface) of abstract visual signs : letters, figures and punctuation signs, called graphemes, and which constitute the smallest graphic units. Letters rarely have a meaning of their own, as was mentioned above. With the exception of vowels, the pronunciation of their name does not correspond to their phonic value in a word.

In written language, the indicators are essentially visual : capital letters and dots respectively indicate the beginning and end of sentences ; spaces between groups of signs help to differentiate words ; question marks and exclamation points replace the intonations of the voice. Transcription of speech into writing implies that all spoken words are written in the order in which they are pronounced, and conversely, reading aloud requires that all written words be pronounced in the order in which they are written. Segmentation into sentences and words is more obvious in writing than in speaking, because of the contractions and linking of words often used in speaking.

Each word has a specific spelling, depending on the rules for writing in the given language, but pronunciation is not necessarily the same

in different places. The pronunciation of English is quite different in London, Wales and Scotland, or again in the different states of the United States, in Australia, etc. French is pronounced differently in the Paris area and in south-eastern or south-western France. Spanish too has its regional and national accents : the same words are pronounced in specific ways in Madrid, Barcelona and Santiago da Chile.

The written alphabet only partially transcribes pronunciation. French is written in the same way in Bordeaux, Geneva, Cotonou and Quebec ; in Seville, Buenos Aires and Mexico, written Spanish is the same.

English spelling in England differs somewhat from that of American English : occasionally words in "ight" in England are spelled "ite" in the USA, for instance. This is a simplified, more phonetic form.

At the same time, in certain languages such as Spanish there are very regular relations between speech sounds and graphic units, with few exceptions : the same sounds (or phonemes) correspond to the same graph. The sound "j" is an exception : it may be written with a "y" as in ayuda, or with "ll", as in pollo. Grammarians call this yeismo, since some people pronounce "y" and "ll" differently. Other languages such as English and French have more complex phonic/graphic and graphic/phonic relations.

In English, for example, the sound [ua], as in poor, may be written "or", as well as "ure" or "our". In French, the phoneme [o], in "dos", may be written "au", "eau", "aux", "ault", "aud", "aut", etc. Conversely, a same graphic unit may have several different pronunciations.

12 The structure of spoken and written languages

Understanding of a language, be it spoken or written, is grounded in the comprehension of its words, of how they are constructed and of the relations between them. Sentences or portions of sentences are pieces of information, as are words and fragments of words. The reading of a text is a solitary elaboration of the meaning contained in it, using visual perception only or occasionally with the help of auditory perception (reading aloud), depending on the reader's habits and aptitudes.

The structure of words

In this search for meaning, knowledge of the structure of words is an important factor in reading (understanding), but also in writing (spelling correctly). It is also important for speaking (creating new words).

Morphemes

The smallest meaningful unit of a written word is its root, called a lexical morpheme, or lexeme, while the total stock of words is called the lexicon.

New words may be formed from the root. "Plant" is the root of the words planting, planter, plantation, for example. The root of a word only yields one part of its meaning, which is refined through the other components of the word. Other visual indications resulting from the application of grammatical rules provide other indications : an s at the end generally indicates a plural form of a noun (and in some languages of an adjective). In French, an "e" at the end of an adjective shows that it is feminine, and "ent" at the end of a verb indicates that it applies to the third person plural, etc.

These significant elements are called grammatical morphemes. Lexical morphemes and grammatical morphemes complete each other in defining the meaning of words. The rules of writing provide some abstract indications of meaning which are not necessarily

reproduced in the spoken form. In French, there is only one pronunciation for the word "chien" regardless of whether "le chien, les chiens, des chiens" is written, whereas the plural may be distinguished in some other spoken forms, such as "cheval, chevaux". In English and Spanish, the "s" at the end of a word is pronounced.

Prefixes

Suffixes

The structure of words contains other indicators of meaning which may be seen in writing and heard in speaking : these are prefixes and suffixes. Prefixes are the part of words located before the root of the word and contributing to its meaning. For instance, "un" in "unknown" or "unequal" is a prefix of Latin origin meaning "not". Suffixes are parts of words located after the root, and are used to form new words that modify the meaning of the root : "ly" in "rapidly", changes the adjective rapid into an adverb, and means in a rapid fashion, while "let" placed at the end of the word "book" creates the word "booklet", meaning a small book.

These examples illustrating the structure of words show the complexity of the relations between spoken/written and written/spoken language, and how they may differ from one language to another.

The unit of sound is the phoneme and not the sound corresponding to a letter that constitutes the unit of meaning. The meaningful unit is not the word, which is difficult to differentiate from its spoken context, but the lexical morpheme or root. However, the letter may be significantly valuable in differentiating two words, particularly when they are homophonic : that is, words with the same pronunciation but written differently. In the absence of any context, the "w" in "write" informs us that the word signifies a graphism, rather than a religious "rite", for instance.

The structure of sentences

Spoken language differs from written language by the type of communication involved : direct in the case of speaking, postponed in the case of writing. These two types of communication correspond to different imperatives, and to specific sentence structures for the speaker or the writer, and for the listener or the reader. Spoken messages are directly comprehended as the sounds are perceived. The intonation, breathing, utterance and sometimes the facial expressions, movements and silence of the speaker are contributive factors. The grammatical forms used respect the laws of spoken dialogue : simple, chronological sentences are juxtaposed, as in : "go to see him, speak to him".

Written language is different from spoken language, owing to the fact that communication is postponed, and to its status within each culture. It is far more complex, since no outside help contributes to its comprehension. It must specify a context, define each place and time, and provide a number of indications so as to avoid ambiguities. For example, when someone says "give him his book immediately" in a real-life situation, there is no need to define the protagonists, nor the nature of the book, and in any case, the speakers are present and may request clarifications until they understand each other. When the message is written, this spontaneity disappears : it is

necessary to specify that "x" tells "y" to give to "z" a particular book belonging to him. As for the adverb immediately, in the written context, it is both true in the context and false in reality.

Syntax

As a rule, written language uses more sophisticated grammatical forms and words than spoken language. Sentences are more compact, and include relative terms, and adverbs of time and place. They use tenses that are rarely employed in ordinary conversation. Information is reorganized in accordance with the rules of the language (function of words, position of words with respect to one another, position of propositions within a sentence), to make it comprehensible. This is the part of grammar known as syntax. The meaning of a sentence is different from the sum of the words contained in it, taken separately. Beyond its morphological meaning, each word derives its meaning from its place in the spoken or written chain called the syntagmatic axis. Each language functions in its own way, with specific expressions and forms for expressing assertions, negations, questions, narrating events and presenting situations.

These forms are not necessarily identical in speaking and writing. Constructions used in speaking are rarely put in writing, except when a dialogue is transcribed. Written language is not as free as spoken language, and the two types of expression – spoken and written – have different social functions. Many contractions and simplifications, such as "you're" instead of "you are", or the dropping of the interrogative form, in "see" ? instead of "do you see" ?, may be heard in speech, but the conventions and status of written language exclude them from writing.

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Written language is usually more elaborate than spoken language, but the latter may take on forms similar to that of written language, depending on the circumstances and the person speaking. Written language is often an ideal mode of expression, valued and standardized, and excluding popular speech, viewed as coarse, as well as colloquialisms, linked with concrete situations.

Writing may take a great variety of forms, depending on its presentation and utilization. To understand and produce written documents one must be familiar with the rules of presentation, which are both social conventions and landmarks in the world of reading-and-writing.

LEARNING TO READ : THE PROCESS

Aside from the question of how a written language functions, and how it is related to the spoken language, there is the question of the process by which the learner gains access to the capacity/possibility of reading. What aspects of his or her personality are involved, what processes are mobilized in order to achieve understanding of the functions of writing, to make written signs meaningful and to succeed in producing writing. Reading is a process involving both social behaviour and cognitive operations.

SOCIAL AND EMOTIONAL FACTORS

The apprentice reader is above all a social being, and his or her relationship with the written word depends on the role played by the latter in his or her family and culture, and on the way in which reading-and-writing is viewed by the environment, as well as its place in everyday life.

The family's use of reading conditions the child's view of its social value and importance for communication. Motivation, the desire to read, are most important for learning, and contact with writing excites the desire to understand it.

Children are not at all equal in their quantitative and qualitative contact with writing. Some children live in social contexts from which writing is completely absent, and sometimes is feared. This makes them uncomfortable in the world of reading-and-writing, and may ultimately be a cause of failure. For others, reading-and-writing is part of their everyday world, even if they are not specially pushed to learn it. They explore it by themselves, and their chance encounters lead them to discoveries. In certain circles, on the other hand, adults introduce children to the world of reading at a very early age. This generates a variety of experiences, more or less emotionally and intellectually stimulating and more or less coercitive (certain children are taught the alphabet at an early age), and which condition children's desire or refusal to learn, and provide information on writing, which they use in accordance with their present possibilities and which may constitute "reading skills".

Thus, many children have only vague notions of the function of books and other written documents, and no idea of the reason for and use of written language ; others develop reader-like behaviour at an early age, long before they are able to read. Surveys have shown that the concepts relative to the functions of writing are less developed in children from family backgrounds with no cultural tie with writing, and that this absence is a cause of failure. Starting in infancy, children are imbued with the reading behaviour of the members of their family.

Individual differences in the age at which children take interest in written language depend on the family's attitude and motivation, and on the extent to which learning to read and write is valued.

At the national level, the age at which reading is formally taught does not necessarily correspond to the age at which compulsory schoo-

ling begins. It is determined by social factors, rather than by factors connected to the child's personality and education. The age at which formal learning begins, like the length of time officially devoted to it in the school curriculum, depends on the role ascribed to reading by the social system ; it is linked with the degree to which reading is valued. In Japan, where the proportion of readers is very high, the term "non-reader" is applied to people who are capable of reading but do not read, whereas in most countries it designates those who are unable to read.

Interest in reading is so great in this country that it is the object of sophisticated research : "excessive readers" are catalogued as one group of children with reading problems !

Paradoxically, the time allotted to children for learning to read is not correlated with the importance of this learning process for families and society. Many school systems traditionally set it at a single school year, even though many children are labelled "school failures" because they did not have enough time to learn.

The time allotted to learning does not depend on the country's economic level, either : in the United States, as in Mexico, children must learn to read within the same lapse of time (one school year). In fact, awareness of the national level of reading ability, and investment of sums to improve it vary considerably between countries with a similar economic level. India, which has enormous economic difficulties and greatly values reading, invests in training teachers in reading, so as to improve the overall level.

The Scandinavian countries are more concerned with children's overall mental health than with reading. Compared to other countries, it is formally taught at a late age, over a period of several years, and is only viewed as a limited part of development. Every effort is made to avoid any risk of thwarting the development of the child's personality through possible failure caused by an excessively early first contact with schoolwork.

Many educators and psychologists approve the Scandinavian orientation, but in many countries there is great pressure in favour of teaching children to read at an increasingly early age. In the United States, some experiments in early teaching have been attempted ("Teach your baby to read" is the title of a best seller). Reading is so important that the fear of having a child catalogued as a "poor reader" at the end of the first school year leads families to teach their children to read at a very early age, with no respect for the consequences for their overall fulfillment and future reading skills.

In many developing countries school is expensive, there is a limited number of places and little time is devoted to the formal learning of reading ; for this reason certain children from privileged settings are taught to read at an early age. School is viewed as a place where children must acquire visible attainments as quickly as possible, and many preschool establishments are actual schools in which children are taught the rules of a language that they often are not even able to speak.

Another aspect connected with the "social" personality of the learner is the importance of sex-linked stereotypes and models.

Studies in social psychology and anthropology have shown contrasting beliefs as to male and female attributes within society. In North America, for instance (USA, Canada), girls are believed to do better than boys during the early phases of learning to read ; it is a fact that research in these countries has shown girls to do better than boys. By contrast, in other countries boys have been shown to do better. To elucidate this question, the main theories pertaining to the causes of these sex-linked differences in reading ability were investigated, and sex-related cultural expectations were found to influence children's reading behaviour. Boys did less well when their teachers believed that they would be less successful than girls, and vice versa.

Stereotyped sex-linked models may play a negative or a positive role in learning to read, depending on whether children, their parents and their teachers are culturally encouraged to believe that reading is an activity for girls or for boys.

The last point involved in the "social" personality of the learner, and which strongly influences reading, is language itself. Given the relations between reading, language and communication, there is no doubt that the language spoken by the child plays a considerable role in his or her achievements with respect to written language. If the level of the child's language is too low, or if writing is done in a foreign language, the effort demanded is far beyond the capabilities of most children, with the possible exception of those who are particularly motivated and given special support. The language used in the child's environment, in relation to the language chosen as a model by schools, affects the way in which written language is learned. Certain children live in a setting where language is composed of a "restricted code", according to Basile Bernstein's expression. This is a syntactically poor language, often incomplete, rich in commonplace expressions and clichés, with a vocabulary mostly limited to concrete, descriptive terms.

Others are familiar with an elaborate code that is closer to written language, with a precise, diversified syntax, some grammatical forms making possible the explicitation of thoughts, and a rich vocabulary. If the level of the children's language is low, they have difficulty in acceding to the meaning of writing ; they do not understand the words, the sentence structure or the rules governing writing as a system. They cannot establish connections between their spoken language and writing, and are usually led to believe that their way of speaking is inferior. Children's linguistic level is strongly correlated with their family's socioeconomic and educational level, and may be a source of unequal access to writing. When children's own way of expressing themselves does not give them access to the type of language used at school, the result may be their exclusion from the world of the written word. Children who, in their home environment, do not speak the same language that they are called upon to read and write are another at-risk group : they include those children who speak a dialect or who live in bilingual contexts.

When the spoken language and the language in which reading is taught are not the same, research has shown the need for reading to be taught in the learner's mother tongue, at least at the beginning. Groups of English-speaking children who were first taught to read in Irish had a 17-month lag in reading English, in comparison to English-speaking children in England. At the same time, English-speaking children in Ireland were also 16 months behind Irish children in the use of written Irish. Other studies involving English Canadian children who participated in French language immersion programmes showed that "their French test results were not as good as those of their French correspondants". Their reading-related skills in English were also behind those of English-speaking peers who followed a normal English curriculum.

Although their findings are identical, these situations differed with respect to motivation : the families of English children learning to read in Irish had not chosen that solution voluntarily, in contrast to the Canadian families, which had the added advantage of belonging to privileged circles. Despite strong motivation, the dissimilarity between the mother tongue and the learned language constitutes a cognitive difficulty.

The conclusions were identical in studies of children speaking a dialect that was viewed negatively or positively by their environment. In Mexico, people view Indian dialects positively, and many parents favour the teaching of Spanish, viewed as essential to social success. Experiments in learning to read in a dialect were conducted along with others in Spanish ; they show that initial teaching of reading in dialect results in a better subsequent understanding of reading in Spanish, as compared to the teaching of Spanish throughout school attendance.

In Sweden, the pitea dialect, for example, is hardly valued by teachers and by the population : children who begin to learn to read in this dialect achieve better results with respect to comprehension and speed of learning than those who speak the dialect at home and begin to read in Swedish, since there is no reference to the latter in the children's experience.

In this case, reading is linked with theoretical constructions and mental contents, the structure and function of which have no roots in the children's practical life. Despite positive results, learning of reading-and-writing in dialect has not been pursued because of administrative pressure. Despite the evidence that children benefit from learning in their mother tongue, opposition to the integration of a culture tend to prevail when the latter is viewed negatively. Social pressure is prepared to condemn generations of children to sure academic failure. In many developing countries, children experience this situation all the more acutely since it is compounded by economic factors. When several languages coexist in a country, it is difficult to favour one of these, since families find this culturally inacceptable ; nor is it feasible to provide population groups with writings in all of the spoken languages, since the publication of small numbers of books is particularly expensive. Further, families tend to view the learning of local languages as a waste of time. These diffe-

rent arguments clearly illustrate how learning of reading-and-writing is linked with the environmental context, and does not depend exclusively on cognitive factors.

PERCEPTION-RELATED FACTORS

Learning to read, and reading itself, call upon visual perception, capacity for representation, attention, memorization and reasoning with respect to the language itself and its system of written representation.

The comprehension of spoken language results from a mental effort essentially based on auditory perception ; similarly, access to the meaning of written signs involves the integration of visual perception. There are still many unanswered questions as to the way in which individuals convert something seen into a mental representation. It was long believed that the eye discriminates letters one by one, after which it puts them together and finally attains meaning through the sound thus obtained. However, observations of competent readers have shown that their eye movements are jerky, when reading : they start and stop all along the text. The eye remains stationary for about one third of a second, then pivots for about one fortieth of a second, after which it stops a bit further on, for another third of a second. Nothing is seen during the pivoting action, but during the stationary moments the eye perceives part of the written chain, known as a "span".

The speed of eye movements is the same for everyone. The speed of reading seems to depend on the size of the spans, which in turn depends on the precision of visual discrimination, the capacity for intellectual concentration, familiarity with the subject involved and the difficulty of the text. According to some hypotheses, the longer the spans, the greater the tendency for the surfaces seen by the eye to overlap partially ; this means that each detail would be perceived repeatedly, and would be easier to memorize and consequently would result in a better understanding of the text. One part of what we read remains in the memory until its meaning becomes clear. During its stationary periods, the eye identifies relevant details, which are used to build the meaning of the text. Perception is an intelligent activity through which the perceived is associated with the previously known.

The indicators utilized differ from one individual to another, depending on prior experience, personality and discriminative capacity. Comprehension of a text develops in accordance with the relevance of the indications gathered as well as the facility in handling concepts - that is, in representing what signs evoke - and in reasoning on the basis of these, so as to interpret as many of them as possible. Theories on communication contend that mastery of eighty per cent of a text is sufficient for understanding its meaning, but that below sixty per cent such comprehension is impossible.

Familiarity with a language, its words and the functioning of its spoken and written forms enables the reader to formulate hypotheses as to its meaning, to constantly anticipate what comes next, and to verify these hypotheses with the help of known pieces of information. Visual perception is occasionally backed up by auditory per-

ception, through reading aloud or in the mind to confirm the meaning, but reading remains a visual activity. It produces meaning rather than sounds. It is in fact more effective. An average reader is able to read only 10,000 words an hour out loud, whereas an average reader reads about 27,000 and a good reader 50,000.

This process, observed in readers, contrasts with earlier conceptions of the act of reading, which described it as a search for meaning based on the systematic learning of the code, that is, of the relations between spoken and written elements, with no attention paid to the learner or reader's approach.

It is now known that learners do not behave in the same way as readers : beginners use certain processes, which they later abandon.

RESEARCH ON LEARNING TO READ

Interest in the way in which children develop reading-and-writing skills is quite recent : little research has been done on the question, aside from the work of Emilia Ferreiro and her coworkers, and the studies she has inspired, in France in particular.

The research done by Emilia Ferreiro and her team is directly inspired by Piaget's work. It involved the study, in 1981-82, of a thousand Mexican children, boys and girls, aged 6 years 2 months to 6 years 10 months at the beginning of the school year, and attending 159 classes in 61 different schools located in 20 school districts in Mexico City, Merida and Monterrey.

The objective was to observe the children before their first year of primary schooling, before they knew how to read, so as to study their conception and comprehension of the written word and the mechanisms through which they construct their strategies for gaining access to written language. The idea was to discover how children go from "not knowing" how to read to "knowing how - being able" to read and write. The first interview was conducted at the beginning of the school year, the second in December, the third in March and the last at the end of the school year.

Children were not asked to read or to write in order to evaluate their skill in reading or writing, but they were asked to do things that are within the competence of people who know how to read and write. They were put in situations requiring reasoning, as is the case when one reads in order to understand, or writes in order to make oneself understood.

The experimental situations were designed to make the children think about the way to write words and sentences they had never seen, to interpret a text with no pictures, to identify fragments of their name, etc. The children were encouraged to anticipate what they would do next, after which the interpretation they had given of what they would do was verified. The verification involved the type of conceptualization developed by the children with respect to the written word, without inducing this conceptualization.

Five main studies were conducted in the framework of this project. The first dealt with the production of writing in the absence of a model at the beginning and the end of the first school year. The

second was devoted to the evolution of written productions during the first school year. The third involved the interpretation of texts associated with pictures, so as to bring to light the relations established by the child between text and picture. The fourth studied the relations established by the child between the text as a whole and its parts, while the fifth was axed on the reconsideration of failure to learn, given the school system and the findings of this investigation.

THEORETICAL PRINCIPLES

1 - Learning to read and write is a historical process, observable in significant groups of individuals.

2 - The process may be described in terms of stages, levels and stopping points, and corresponds to ordered principles of internal evolution.

3 - The history of the process cannot be deduced from the final form of the skill achieved : the analysis of the mechanisms used by a reader in reading does not reveal the strategies used by the learner.

4 - The history of the learning process does not reflect the externally imposed structure of the teaching method or the succession of information and activities selected by any adult logic.

5 - The pattern of learning is the pattern of a cognitive learning process applied to a system of signs governed by internal laws (cf. written language). To understand it requires comprehension of how children take possession of the internal laws of the system by constructing them, and how they establish intermediary and transitional systems that are sufficient for their own specific use of the written word.

6 - Children's graphic productions before they know how to write, and their interpretations of writing before they know how to read are guided by "hypotheses" constructed by them on the basis of information gathered and transformed, and of their own experience with writing.

7 - Children are active, and operate intelligent transformations of information received through their cognitive patterns : for instance, they may juxtapose several identical signs to indicate the plural form of a word.

8 - Children's activity leads them to modify their initial patterns in order to integrate new information that cannot be assimilated at once. The result is a conflict that enables them to change through an equilibration process.

Findings

The examination of sequences in the children's evolution in the course of the school year shows that before beginning school each children all have specific contact with writing, depending on their home environment : they see people who read or write, receive information about the written word and have a more or less consequent activity with respect to it. On the basis of this activity they build patterns or a conceptual framework with respect to the written word and to the relations between speech and writing and speech and reading, so as to imagine how one goes about reading and writing.

Schooling then intervenes, and provides information and situations in which the written word is encountered that are very much the same in most cases. Children have different ways of assimilating. For instance, they do not react in the same way when they have received the same explanations and the same instructions : when told to copy their first name, for example, children may name each letter as they write it, or draw a perceived total form ; the result will not be the same.

During their first school year, the vast majority of children pursue a "spontaneous" evolution that coincides exactly with that of preschool-age children. This finding is important : it shows that even if children do not understand the phonetic correspondences on which the alphabetic system of writing taught by their teacher is based, they still make progress. They receive information which they transform according to their own mode of thought and do not follow the process imagined by the teacher. Children advance at varying paces ; other people may help them, but no one can learn in their stead.

Conventional characteristics of writing

At the beginning of the school year, when children are asked to "write letters", 88 % of children are able to draw conventional graphs, but 10.5 % do not draw letters of the alphabet : some draw circles and lines, a small number scribgle, others make shapes resembling letters or mix real and imaginary letters, and 1.5 % are unable to write.

98.5 % of children entering school have adopted the rule of writing linear sequences. 94.5 % know that writing conventionally moves from left to right. 20 % make "pseudo letters" when entering school, but by the end of the year these pseudo letters have almost completely disappeared. Letters are learned relatively easily. 20 % of children confuse numbers and letters when entering school, but by the end of the school year they are able to differentiate these two series of graphisms.

All of these formal characteristics of writing are linked with discriminative perception, motor control and ability to evoke complex geometric shapes. These factors should not be viewed as possibly contributing to failure to learn.

The graphic difficulties of children entering primary school are lesser than their difficulty in understanding the system of writing. Children's true progress and difficulties are of a cognitive order. Most children must accomplish a long cognitive journey before they are able to achieve understanding of the internal functioning of the system of writing.

What is important for children is what they want to write and not the differences in the final product. 90 % of children entering school do not understand that the variations in writing are linked with variations in the sound of the words represented, but 75 % know that a certain amount of letters are required in order for something to be written. They also know that there must be differences in the text if different things are to be read, and they attempt to achieve this by varying the position of letters, their character or their number from one piece of writing to another.

Learning is constructive, by nature. Children build their knowledge, they do not receive it in a preconstructed form. In order to integrate what is taught, children transform it according to their own modes of thought ; they actively guide their own learning process. Children who are at an earlier stage require more time to reach the adult system ; children who began school at the same level move ahead at different paces. Some skip certain stages ; these are the ones who benefit most from classroom stimulation ; others seem to be blocked, and continue to explore their own hypotheses, unable to gain access to the adult system.

The four levels

In the course of the different interviews and activities conducted during the survey, a study of the children's graphisms led to the definition of four main levels : presyllabic, syllabic, syllabic-alphabetic and alphabetic.

The presyllabic level

Children do not attempt to establish a correspondence between graphs and sounds, although all are not at the same point in their evolution. Certain children are scribbling or drawing pseudo letters, while others draw a mixture of pseudo letters and real letters ; there are also some children who use letters only, different letters or always the same ones, in set or variable quantities.

In their writing, these children attempt to find objective criteria to differentiate what is written, either by changing the graphs (which may be real letters, pseudo letters or even circles, lines, triangles, etc), or by using the same ones but changing the order, or increasing the number of letters to write something big and decreasing the number for something that is small.

At the most advanced point in this level, the first letter of each writing is given the value of the first syllable of a word, although the child is not yet concerned with establishing a connection with a sound. This stage prefigures the next level : the syllabic level.

The syllabic level

Children attempt to establish a correspondence between graphs and syllables. They understand that the differences in written representations are related to differences in the form of words ; they must discover what type of division of a pronounced word corresponds to elements of the written word.

Here too, there are different subdivisions of the level, ranging from primitive syllabic forms of writing, unrelated to any correspondence with sounds (four letters for four syllables, for instance) to strict syllabic writing in which the conventional sound value prevails ; that is, with as many graphs as syllables, and most letters have a sound value corresponding to that of the word (four vowels corresponding to the four vowels of each syllable, for example "a" symbolizing "ma" and "i" "ri", etc). Children have difficulty with the minimal quantity. In their way of thinking, writing must contain more than two graphs, and this leads to a cognitive conflict in writing words with one or two syllables : they write more letters than syllables for short words, whereas they establish a correspondence for longer words. Solution of the conflict over the minimal quantity (through the addition of a syllable to words formed of a single syllable) indicates that they have reached the next level.

The syllabic-alphabetic level

At this stage, children possess two ways of establishing a corespondence between sounds and graphs : one corresponding to the syllabic hypothesis and the other to the alphabetic hypothesis. Each graph systematically corresponds to a sound unit, but some of them represent syllables and others phonemes. Here too, there are differences within the level : in the writing of certain children the conventional sound values prevail. When they have reached this stage, children progress to the alphabetic level.

The alphabetic level

At this point, children have gone on beyond analysis syllable by syllable, in the construction of writing, to a stage where phonemes correspond to graphs. Here too, different degrees may be observed. At the outset - and this may seem quite primitive - there is a letter for each phoneme, without any sound correspondence between them. Later children respect the conventional sound value in the correspondence between a letter and a phoneme, even if they make some mistakes owing to poor recognition of certain conventional links between letters and phonemes. The number of letters that must be known in order to give precedence to sound value in writing must increase as the conceptual level of writing, with correspondence with sounds, grows closer to the alphabetic level. The highest level is the one in which writing corresponds entirely to the alphabetic system, although spelling is not completely conventional.

Distribution of levels of writing in the course of the school year

Children's level	Presyllabic	Syllabic	Syllabic-alphabetic	Alphabetic
Beginning of school year	81,5 %	14,5 %	3 %	1 %
End of school year	13 %	12 %	13 %	62 %

Source : E. Ferreiro, M. Gomez Palacio - Lire-écrire à l'école. Comment s'y apprennent ils ?

This is an important study : it confirms the fact that children gain access to reading through a long cognitive process, and that almost all children progress. Even if 13 % of children are still at the presyllabic level at the end of the year, they may have progressed within this stage.

Non-alphabetic forms of writing are not necessarily erroneous responses ; they are meaningful in the child's personal progression. Reading is the optimal coordination between pieces of information taken from several sources : visual information provided by letters and groups of letters, the presence of contextual information, linguistic familiarity and conventional sound correspondence of letters. If the availability of one of these sources of information is eliminated, the reading process is disturbed ; for this reason, teaching of reading should not be reduced to teaching the sound value of letters.

In the psychogenesis of writing, children's intellectual approach is grounded in their experience rather than in a code and conventions.

The two basic rules inherent in any system of writing are that all words pronounced out loud (when reading a short text of five or six words, for instance) are actually written, and that the order in which they are written is the same as that adopted for reading aloud. The process through which children integrate these two rules is a long, progressive one ; very few preschool-age children adopt these rules, and some children do not yet accept them at the end of a school year devoted to learning to read.

Children's actual difficulties do not necessarily correspond to those related to our adult conceptions : children find something easy if it can be assimilated at the current point in their evolution. Even if children understand certain logical rules such as the one to one correspondence - that is, that each word in the written sentence corresponds to a spoken word - they are not always able to apply the rule when reading, because of their conception of what a word is.

Certain children refuse to consider one or two letters as meaningful, because of the idea that only nouns are written. Articles, prepositions and conjunctions are the last words to be accepted by children as an actual part of a text.

Children should not be judged according to adult norms, but in the framework of the regularly progressing process by which they gain access to that norm.

The research done by Emilia Ferreiro definitely provides a limited view of the question, since it deals exclusively with Spanish-speaking children, and Spanish, like every other language, functions in a specific manner. However, it does confirm the assumption that learning to read is a skill, rather than the acquisition of encyclopedic knowledge of the relations between graphs and speech sounds.

Like any other skill, the cognitive phase involves learning the functions and techniques, and is followed by a phase of increasing proficiency and last, by automatization. If the latter phase is not reached, the skill deteriorates, and the learner falls back into illiteracy. Beyond it, performance may improve : it is through reading that one learns to read, and to read increasingly well.

METHODS AND TEXTS

METHODS

The term methods is used here to designate the educational techniques used to help children learn to read. By no means does it refer to the educational handbooks often used for this purpose, and which are simple tools to which the educator may resort for the application of the methods chosen. Several basic methods will be discussed, with no pretention to an exhaustive enumeration.

Methods are linked with different conceptions of the act of reading, and may be divided into two main categories : the traditional conception, which starts with writing itself and cuts the system into fragments to make it comprehensible for children, and the learner-centred conception, which may be of two types. One is based on the observation of the performance of competent readers, while the other is concerned with the process used by learners.

Each method has its logic, and the two main trends correspond either to a model for teaching reading and/or to a model for the act of reading and/or of learning to read.

Every teacher has a theory about how children should learn to read, and it is quite rare to meet a teacher who uses a method in a pure form.

Certain methods seem to be more efficient, while others are severely criticized, but approximately one third of children learn to read regardless of the method used. As shown above, children make varying use of what they are taught, and assimilate what they can when they can.

Methods based on the written code

These methods almost all rest on the assumption that reading is the equivalent of transforming the written word into a spoken word, through the acquisition of a transcoding mechanism. Some are synthetic methods such as the alphabetic, phonetic or syllabic methods, others are analytic.

Synthetic methods

The alphabetic method was almost universally utilized from ancient times until the 19th century, and has still not entirely disappeared. It consists of learning the name of letters in alphabetical order, after which combinations of two or more letters are spelled and pronounced. Its rationale is the progression from simple units to the complex ; that is, from letters to sounds and words, even if letters do not always correspond to the sounds produced. Emphasis is placed on the mechanism, to the detriment of comprehension, and most combinations are meaningless.

The phonetic method is the fruit of research in linguistics, and more specifically in phonetics, as indicated by its name. The sound of letters is taught first, followed by the sounds produced by groups of letters, as well as the rules governing these combinations. Phonemes are usually dealt with according to their frequency in the language involved. As in the alphabetic method, this method stresses the mechanisms to the detriment of understanding of the text : some meaningless elements are learned, with the risk of discouraging the pupil from reading.

There is a variant of this method : the key-words method. It proceeds by associating a letter with the picture of a key-word that designates it.

The syllabic method takes the syllable as the basic unit. It represents a slight progress with respect to the alphabetic method, since consonants can only be pronounced correctly in combination with vowels. It is believed to be specially appropriate to Spanish, Portuguese, certain African languages and all languages with a simple syllabic structure, including Japanese.

Synthetic methods are logical and systematic in nature, especially when applied to languages in which each basic sound is represented by a single distinct sign. They give a sense of security, since they have existed from time immemorial. They do not require specially trained instructors, and make use of limited teaching materials. However, they are accused of placing excessive emphasis on the code, as opposed to understanding, and of deterring readers by having them repeat meaningless verbal fragments, as a result of which some learners decipher by rote, and drone through exercises — an activity which is completely different from reading.

Analytic methods

There are other, analytic methods, that are the opposite of synthetic methods. They postulate that reading must start with meaningful units such as words, phrases or whole sentences, which are then cut up into elements.

Analytic methods are historically more recent, and take children's psychology into consideration. By giving priority to understanding, they attempt to attract the learner's interest : they are also called global methods, and are applicable to all languages including those based on ideograms such as Chinese, or those combining ideograms and syllables, such as Japanese.

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Analytic methods have changed : gradually, words and phrases were put aside, and the sentence was considered the basic unit, after which the sentence was replaced by the narration. Actually, the narration method has been found to be more appropriate for child learners than for adults.

People are afraid of analytic methods, and they often accuse them of everything that goes wrong, and more particularly of introducing difficulties in French and English, since the same sounds are not always written in the same way. They are accused of being too slow, and of delaying the time at which the learner is capable of recognizing words without help. They require better trained personnel, since they are less systematic than the synthetic methods. Also, certain sounds, or certain specific aspects of a language may be overlooked, depending on the sentences and narrations used.

The drawbacks of both of these types of methods — synthetic ones placing more emphasis on the mechanical aspects and analytic ones stressing meaning — have led to the conception of "hybrid", or "eclectic" methods.

"Hybrid" or "eclectic" methods

These start with sentences, cut them up into words, then cut the words into syllables and the syllables into letters, after which the process is repeated in the opposite direction, starting with letters and proceeding through comparisons, parallels, and use of the learner's linguistic resources for the identification of similar elements to put syllables together to form words, and then to reconstitute sentences with the help of familiar words. These methods use ability for both analysis and synthesis, and require well-trained personnel.

All of these methods are centred around learning the conventional combinatorial system, at a given age or a given time, even if they take the learner's curiosity into account, to varying extents. They are all based on the assumption that once the code is assimilated, the ability to read has been acquired, even if experience shows that decoding does not necessarily result in the discovery of meaning.

The goal is assimilation of the code, viewed as the precondition for reading. It should be noted that each country's choice of methods is not guided by the characteristics of the local language, as might be expected. In Japan, for instance, analytic and synthetic methods both have many followers.

Learner-centred methods

The new conceptions of the act of reading do not view reading as the outcome of a teaching process but as a learning process that is constantly built upon from birth on, throughout life ; they have led to the creation of new methods for learning to read. As opposed to the traditional methods, the conventional combinatorial system is learned last, and is viewed as a tool serving understanding. The code is not learned first, and reading afterward : one learns to read by reading, and to write by writing, and not just for the sake of reading and writing, but in the context of a project involving reading (or writing). The first step consists of the discovery of the functions of writing, and the creation of a need for writing, along with the building of appropriate reader-type behaviour. The objective is not simply literacy. It is to generate readers who are at ease with all types of written documents, capable of understanding them and using them regardless of their presentation, and whenever necessary, regardless of circumstances.

In order to achieve this capacity as soon as possible, children are placed in the position of readers. They learn to develop an investigative attitude, and to interrogate everything around them, including written documents.

They acquire an intuitive notion of writing through the extension and refining of their proficiency in speaking, as well as through the concepts of meaning and permanence of writing. An awareness of the functions of books and of other written documents and of the way in which language is coded by writing is gradually developed. Children learn to discover indicators of meaning, to construct hypotheses as to the meaning of writing and to verify them afterward. As they read, they reconstruct the code that provides the link between graphs and speech sounds. This is a personalized approach, rather than a mass teaching method in the sense of literacy teaching. The teacher plays the role of a mediator between the

learner and written documents. He or she provides information, exercises certain aspects of behaviour by systematizing it, and helps the children to think about what they are doing.

The type of indicators noticed — whole words or fragments, the beginning or the end of a word, a letter, or a syllable — depends on the child's personality, and on whether he or she pays more attention to visual or to auditory elements : each individual establishes his or her own correspondences, which yield access to meaning. Emphasis is placed on the reader's behaviour with respect to writing, and not on the memorization of written units : learning is viewed as the establishment of a structure, which is assembled at a given time, and not as the cumulative effect of basic acquisitions, which must be taught.

Children are faced with all sorts of written materials in different situations. Learning is closely associated with the goals of reading, and children soon discover the types of acts linked with reading in different contexts : reading the lines of a novel, the columns of a newspaper article, finding a word in a dictionary, reading a table, etc.

Learning

In addition to understanding written documents, "knowing how to read" involves knowledge of the methodology for gaining access to different written materials, as well as efficiency. Learning does not stop at the acquisition of knowledge, it continues during "overlearning", which frees the mind of all technical aspects. This attitude enables the learner to read increasingly rapidly, and to gain direct access to meaning without the need to pay attention to anything else.

Aside from their emphasis on the functional character of reading, these new approaches are very concerned with motivation, the development of a taste for reading and of the pleasure linked with using one's mind and developing one's imagination, all of which are underlying factors in the desire to learn to read. They require highly qualified personnel.

Reading is an integral part of overall development ; it becomes a way of living in a world in which writing is present. It attains a dimension beyond that of the rote learning of a code to succeed at school, or for no real reason.

In reality, there are as many methods as there are teachers, and as many ways of learning as there are individuals. Successful learning depends more on the educational project implemented than on the method itself. In the sphere of education, there is no absolute truth, there are only different practices aimed at facing up to a constantly changing situation in accordance with the necessarily unfinished state of knowledge as well as with the cultural and social needs and the available human and material resources. Practices change very slowly, and the traditional methods are still greatly appreciated, probably because most of today's readers learned to read with them.

At what age ?

This rapid review of methods shows how closely they are linked with their very conception of reading, and their implicit response to two delicate questions : at what age should learning begin, and what

stock of knowledge must the learner possess in order to become a competent reader ? It is easy to see that if systematic teaching of the code is chosen, there is definitely a question of age and of the necessary prerequisites – that is, of the abilities required to engage in the learning process with a good chance of success. The answer is partially contained in the choice of an age of compulsory schooling, which age is practically the same everywhere.

Conversely, if reading is viewed as a learning process, no specific age or degree of maturity is required to attain it. Children are potential readers from infancy on, depending on their relationship with the written word : for instance, at two years they are readers in the sense appropriate to their age, when they turn the pages of a book and name the pictures they see.

In this context, although prerequisites such as awareness of the body scheme, lateralization, auditory discrimination and symbolic development are indispensable for reading, they are seen as aspects of development and components of individual fulfillment, rather than as a preparation for learning to read.

Use of intermediate codes such as pictograms seems to be useless for learning itself, however valuable they may be in exercising the sympolic function or developing the imagination.

In this view, learning to read is a part of the evolution of children's relationship to writing within the context of their overall development.

30 **TEXTS**

There has been an evolution in the texts used in learning to read, that has followed the evolution of conceptions of this learning process.

The first books used were spellers and syllable books. They were austere and formal, and were aimed only at teaching the conventional combinatorial system, with no attempt to interest children or to communicate with them. Letters were presented in alphabetical order, then in combinations. Only at the beginning of the 20th century was children's psychology taken into account to some extent. At that point pictures were introduced as a point of departure for lessons, to make access to the book more pleasant. Further, progression was based on the acquisition of familiar words and of short sentences related to concrete activities within the realm of children's experience.

Syllable and spelling books were followed by more attractive reading textbooks, with pictures accompanied by sentences to be spoken out loud then broken down into words, syllables and letters. Children then reconstructed sentences by reversing the procedure, going from the letter to the short text. These textbooks apply the "hybrid" method based on analysis followed by synthesis. This method did not change much until the 1970's, at which time the contribution of linguistics resulted in the publication of increasingly well illustrated textbooks whose content took the sound aspect of language into consideration, although their presentation hardly differed.

Learning then makes reading-and-writing dependent upon spoken language. It is no longer based on the alphabet, but on a more scientific relationship between speech sounds and graphs. These books pay little attention to the graphs, which are presented in an extremely simplified form.

Textbooks

Few textbooks receive unanimous praise : criticism may be addressed to the educational method, the presentation and/or the content. The main reproach involves the use of an artificial language, simplified to the utmost, entirely oriented toward sounds, practically unrelated to everyday language and from which the figurative sense of words and expressions is excluded. This language employs either a very limited vocabulary or a large vocabulary containing unusual words, aimed at determining whether the mechanism has been acquired. It shows a preference for simple words with a strict correspondence between speech sounds and graphs. Syntax is often simplistic. Sentences are occasionally meaningless and follow each other arbitrarily, with no link between them. Progression is based on what is believed to be easy for children, and on the subject dealt with in the previous pages. New elements are introduced gradually, resulting in a collection of phrases producing insipid, styleless texts, unrelated to the liveliness of real language. Neither spoken language nor written language are truly encountered, as they actually function. The language of reading textbooks often gives the impression of a laborious, mechanical language spoken by foreigners.

A second criticism of reading textbooks involves their content and the values they embody. Since the times of spelling and syllable books, with their encyclopaedic, moralizing objectives, a considerable effort has been made to interest children, so that they will take pleasure in reading. To do so, themes that are supposed to please children and to belong to their everyday life are used : the family, play, the countryside, animals. But the illustrations used often belong to another era, and many children living in urban environments learn to read in books picturing the rural world as it was before the very existence of books !

Reading textbooks present many stereotypes, in which the roles of men and women seem to have been defined once and for all, and cannot change. Time, with its consequences, including ageing and death, is absent, as are the sorry facts of hunger, poverty, war, natural catastrophes and accidents. All goes well, in the best of all possible worlds, but an unreal world, where nothing unexpected can happen, full of commonplaces to make sure that no one will be shocked. As a result, these books do not portray the sociocultural features of any actual population group. Since they do not provide any concrete references or characters with whom to identify, textbooks do not stimulate reading at all, but remain lifeless objects that only exist in the school world. Their lack of interest may be an obstacle to learning. Bruno Bettelheim speaks of some reading textbooks as an insult to children's intelligence.

The criticisms formulated with respect to reading textbooks and the evolution of ideas about learning to read have generated some new books which, although they are not perfect, do attempt to take into

account children's centres of interest within their own environment. They contain short texts dealing with the problems of young children, stimulating their imagination and showing them that the printed words express emotions, feelings and realities. They place less emphasis on the code and more on beauty and attractiveness. They provide literary tales or theatrical scenes. Some recent books contain a collection of various types of texts : linear texts, but also parts of comic strips. They also contain references to albums of literature for children, to ensure continuity with the books children enjoy.

However, teachers do not all use reading textbooks, either because they do not possess any (as is the case in many developing countries), or because they create their own teaching material, so as to adapt it more closely to children's needs and interests. Some teachers practice what is known as the natural method, in which the material used is the children's own phrases or texts, or else they use real texts such as correspondence, posters, handbills, invoices, dictionaries, children's books. This approach to reading requires solid educational training, so that the materials chosen will not only be interesting, but will correspond to the children's possibilities and help them to progress in learning.

There is no ideal book, just as there is no ideal method, but each book has its own logic, and furnishes landmarks to guide educators, particularly those with little training.

What is most questionable is the use of old-fashioned reading books as the only educational tool, when many other written materials are available. In places where books are rare, the reading textbook is occasionally the first or only book to come into the hands of the learner, and despite all of its imperfections, it has the merit of existing.

Texts and methods serve an educational process which is constantly being reexamined, and like it, they change very slowly. They are closely tied up with a specific conception of how reading is learned at school.

HOW TO PROMOTE READING

READING AT DIFFERENT AGES AND IN VARIOUS CONTEXTS

The promotion of reading is a long-term project affecting all human beings regardless of age and milieu. It should enable every individual to move freely within the world of written documents, and should make reading a factor of individual fulfillment and well-being, rather than allowing it to become a handicap.

There are a great many types illiteracy, which are more or less handicapping depending on the person's age (small child, schoolchild or adult), past history (a previous, more or less fruitful attempt at learning to read), the environment (in which writing is rare or abundant) and the situation (an unemployed youth or a retired person).

In a region where oral communication prevails, it may seem that the everyday life of true illiterates — that is, people who have never learned to read — is less disturbed than that of functional illiterates.

The term functional illiterate designates someone whose practice of reading-and-writing is deficient. Such people are insufficiently skilled in reading. They do not always understand what they read, and their written messages have "holes" that make them difficult to understand (poorly chosen words, approximate spelling, poor sentence construction, etc). Further, reading-and-writing requires considerable efforts of them, and procures no pleasure, when it does not cause apprehension.

In a country where everything is put into writing, functional illiterates, like true illiterates are excluded from all of the specific contributions of written documents, and their participation in social life is necessarily limited.

Society is actually divided into two categories : the illiterate and the others. Illiteracy is a major problem in the present-day world. As long as it has not been solved, it is useless to speak of the right to education for all, social justice and of course development. Illiteracy affects a great many individuals : in 1985 (1), 889 million illiterates were counted around the world. It is more widespread in developing countries, but it also affects industrialized countries.

There are 666 million illiterates in India. Although this is the highest figure proportionately to the world population, the highest rates of illiteracy are found in Africa, and more specifically in West Africa. Illiteracy is unevenly distributed within countries, and prevails essentially in rural areas and marginal urban areas. It is more frequent among women than among men, and among the elderly than among the young.

Many types of action may be undertaken to promote reading at different ages and in different settings. They may act at three levels : preliteracy teaching, literacy teaching and post-literacy teaching.

(1) A summary statistical review of education in the world. UNESCO, International Conference on Education, 40th session, Paris, 1986.

The term literacy teaching is used in the sense of mastery of the process by which written texts may be understood and produced. It makes no reference either to any particular conception of learning, nor to any content or specific method. Pre-literacy teaching is the period preceding the acquisition of reading-and-writing, while post-literacy teaching is the subsequent phase, during which the individual uses this new aptitude and possibly develops it, to become more skilled, or on the contrary, regresses.

If reading-and-writing is viewed as a skill, its attainment involves a phase of familiarization with the functions and techniques of reading-and-writing, followed by a phase of increased proficiency and last, a phase of automatization, or over-learning. If this latter phase is not reached, the skill deteriorates and the learner returns to illiteracy. Beyond this phase the skill may be perfected, with improvement of speed and comprehension. It may also be transposed to other contexts, such as reading a foreign language that one is able to speak.

Pre-literacy teaching

Pre-literacy teaching is a most important step before beginning any systematic learning of reading-and-writing. In the first phase, it involves the stimulation of a desire to read by the development of a positive attitude toward written language, and the creation of a need to read and write, as well as the wish to learn in the case of people who, young or old, have never received an education. Its goal, for those people who have already begun to learn but were unable to pursue it to a successful end, is to reconcile them with the world of reading, and to revive the desire to involve themselves in an activity which requires some effort. For very young children, pre-literacy teaching means the discovery of writing and of books, like any other object, as they discover the world around them. It is not enough that the child be surrounded by books ; he or she must be allowed to handle them, and to become familiar with them as very special objects. Imitation plays an essential role : playing at reading means that the child already feels at ease in the world of reading. Everyone can help young children to appropriate the world of writing, even illiterate people. What is important is not knowing how to read, but communicating interest in what is written.

In a second phase, the notion of enjoyment should be connected with the relationship with books : these pleasures will vary with the child's age. The first ones are sensory, since this is how children discover the world : using their mouth to suck, their hands to turn pages, their ears to hear the rustling of pages, their eyes to discover colours and shapes. These sensory pleasures should be associated with the joy of a special relationship mediated by books or pictures : the pleasure of being with someone, of feeling good, happy, sharing. To be intellectually alert and ready to take interest in the content of a book and in the meaning of the pictures and of the text, children need real, physical contact. They must also accumulate positive memories that will help them to face difficulties, and to build emotional security in the world of written language.

In a last phase, children should be made aware of all sorts of written texts, so as to discover their potential meaning and to become cons-

cious of acts of reading. As a rule, reading is done silently, and an effort is required to make it visible. It must be demythified, and children must be shown how it enables people to know certain things. There is a reason why strangers coming to the village for the first time already know its name : they have read it on the road sign. Children should learn that reading not only procures pleasure, but that written documents also raise questions, provide information and store facts.

As they witness the various ways in which reading is used by those around them, they discover the functions of writing. They must learn to function with written language. The act of reading must become natural, and resorting to written information a habit, a natural act. Many types of behaviour are developed by the simple fact of living in society, and being a reader is one of these.

However, many children — including in industrialized countries — live in environments in which writing and literate individuals are rare. In France, for instance, one child out of four possesses less than five books. In Ethiopia, there is less than one book for four children. Certain children do not have any books before entering school, and can only use these at school.

In those settings where writing and literate individuals are rare, pre-literacy teaching should be an act of community solidarity, including parents and school-attending young people. Families, schools, and the entire literate community should join their efforts to introduce all of the non-literate to the world of the written word. There is no need to know how to read in order to recognize a text, to comment pictures, or to tell stories using a picture book. When books are rare, all existing written documents should be used, regardless of their nature : road signs, official identification papers, health record cards, posters used for health education, electoral or advertising campaigns, handbills, calendars, packages, newspapers, printed cloth, banknotes, coins, etc.

Everything that is written should be a source of discovery of the existence of written language. Everyone who knows how to read and write should contribute to the promotion of the written word. It is easier to introduce children to the existence and functions of writing than to make access to written language seem desirable to adults who have been accustomed to doing without it, and have more or less given up, following failure at school.

In both cases, pre-literacy teaching requires that the needs of individuals be analysed within their environment, so as to discover a motivation, an anchorage point that generates the need to use writing, and therefore to learn or relearn to read and write. Access to reading-and-writing should become an essential tool in individual and community projects.

In those societies where the introduction of reading-and-writing represents a new cultural practice, the desire for access to written language should be stimulated by community projects, so that this

activity may be adopted by a social group. In this way it does not isolate individuals, nor cut them off, but it becomes a part of the culture, since it is shared.

Pre-literacy teaching is a very important stage, and when it is omitted or experienced negatively, it constitutes an obstacle to the achievement of literacy.

Literacy teaching

Developing a taste for reading is insufficient. Action is required to facilitate access for people of all ages to reading skills.

In small children, pre-literacy teaching and literacy teaching tend to melt into a single process, inasmuch as reading is a learning process. The best way to help them is to lead them to understand what a written text is before teaching them the conventional combinatorial system. It is important that they learn to integrate writing in their usual functioning, that they link it with life, and acquire the reflexes of readers.

Formal and informal preschool education programmes should give priority to small children's needs for development in the psychological-sensorimotor, social-emotional and cognitive domains, instead of anticipating on school programmes, as they often do. The first steps toward reading-and-writing should develop children's language so that it may move toward a level close to that of the commonly used written form ; the latter is more elaborate than everyday language, which is spoken by everyone with no special efforts needed to learn it.

This work may be done by telling stories and tales to children. Listening to narratives introduces them to a less immediate form of expression, which is more abstract and complex than direct speech. Books and other written documents (letters, posters, etc) may also be read to children : these should be read in their totality, without changing the text and above all, without translating it into a language judged easier to understand. Reading the original text does not exclude exchanges of questions and answers with the children, to make sure that they have really understood what was read.

Naturally, the language used should be the child's mother tongue, without which there is no possibility of communication, and no sharpening of the capacity for representation. The mental operations involved in spoken language are then quite similar to those applied to written language in the act of reading. The former are precursors. Litteral repetition, word for word, in fact helps children to develop a sense of the permanence of words and of writing. They learn that the story is contained in the signs, and is stored in the form of writing. They develop their knowledge of how language functions, as well as their own capacity for abstraction, and their symbolic thought process. Written storytales bridge the gap between literature from the oral tradition and written literature.

As their faculty for representation develops, it plays an essential role in reading, owing to its very nature (the attribution of meaning to signs) and to the suggestive power of the written word (for the men-

'al representation of situations). Interest in reading, and its potential for providing pleasure, depend on how vivid the reader's imagination is.

Introduction to the world of pictures in infancy helps the child to develop his or her oral expression, and also stimulates the ability for imaginative portrayal : it is an initiation to reading. At first, pictures replace absent objects, which may then be named. They participate in the elaboration of memories : they evoke, and represent. They open the door to the world of symbols, since however similar they may be, there is always some difference between them and the reality they portray. They only show certain aspects of reality, and each person restitutes the missing elements, using his or her own imagination. The reading of pictures is a reconstruction of reality using the experience, intelligence, intuition, sensitivity and creative and imaginative capacities of each individual. It involves many of the psychological mechanisms that are at work in reading. It contributes to the development of reader-related behaviour : the discovery of indications of meaning using visual details that lead to the formulation of hypotheses, which in turn will be verified through a search for other relevant indications, etc.

As they learn to question pictures, and to seek the overall meaning of a situation in its details, children integrate the mental process specific to reading. They do so all the more spontaneously when these pictures are particularly fascinating, or excite curiosity. Children are attracted to pictures, and seek them out. This is a first step toward the development of intellectual curiosity, and the search for an "abstract" type of pleasure. Later, they will go on to attain the attitude of a reader, which means having a project involving reading, and using pictures and books as a source of enjoyment.

Children's interest in pictures "sharpens their eye", gives them practice in looking, in reasoning on the basis of graphic elements and discovering those which are constitutive of meaning. Gradually, through their contact with pictures, picture books without text and then with text, children begin to guide themselves, to read colours, shapes, pictures, the picture as a part of a story, and in connection with other pictures. They discover the relation — or lack of relation — between the text and the pictures, depending on their imagination and on the author's intentions. One day they begin to take interest in the text itself, to discover certain reference points, and to learn to interrogate it.

It is the constant contact with pictures and books that generates the need to read : with the help of mediators, be they adults or other children who know how to read, children then develop effective reading habits, before they comprehend the code or are systematically taught it. Familiarization with texts is necessary. It leads to the establishment of natural relations with them, to their integration in experience, and dedramatizes learning. This facilitates children's access to the concepts inherent in writing, and to the vocabulary used to name them.

Many children approach reading at school as a "school subject" that must be learned, and is expressed in terms they do not understand. They hear talk about vowels, sounds, words, syllables, sentences, but do not know what these designate. In addition to confusing them terribly, their ignorance of this specific language makes writing seem — and actually become — much more difficult than it actually is. It becomes an artificial instrument in an artificial setting : school.

If the goal is to educate children to be true readers in everyday life, the approach to learning to read at school should be based on written documents that are true instruments of communication across space and time, in real-life reading situations.

Many reading textbooks used in schools actually hinder learning instead of stimulating it. It would be preferable to replace them by written documents and books that are closer to children's centres of interest. In industrialized countries a wide range of children's books appropriate for different ages, including babies, are available, but these are nonexistent in most developing countries.

An enormous worldwide publishing effort involving books and pictures is needed, so as to provide all children at each age, as well as all adults, with books appropriate to their cultural context, interests and intellectual possibilities. Such books should take people's linguistic capacities into consideration ; that is, they should not go too far beyond the type of language they are capable of understanding at a given age or level of language. The language referred to here is passive language, or what is understood, in contrast to active language, or what one is able to use. This does not mean that the language employed should be oversimplified.

Texts should not be too short, or purged of words considered difficult to spell : these contribute to the construction of visual clues and of clues to meaning, in connection with spoken language. It is important to use the proper words, rather than words that are easy to write but less appropriate to the context, or resulting in meaningless sentences. Discernment must be used in the choice of words, since their emotional grip may be so great that they cannot be read. Bruno Bettelheim points out that certain children make mistakes when reading not because of ignorance of certain words, but because those words are so emotionally overwhelming that the child is unable to pronounce them. Written documents are only valuable if they help children or adults to progress in their grasp of language and in the development of their thought processes and of their personality.

The choice of themes is as important as the choice of words : it conditions the reader's interest and progression through contact with texts. The theme should cover a variety of fields touching on the concerns of ordinary people. It should portray characters with which the reader may identify, in familiar settings providing a number of landmarks. In addition to these books, other texts that encourage dreaming and provide an escape from everyday life are of course needed. The written materials offered to children and adults cannot be the same (although some texts may be appropriate for both), since their concerns and comprehension are different.

Illiteracy resulting from a lack of opportunities to read should not be confused with illiteracy resulting from poor intellectual development. For this reason, adults who have demonstrated normal intellectual capabilities in everyday life should not be taught to read in simplistic books which are occasionally inappropriate for use with normally intelligent children. Aside from the fact that texts should be adjusted to specific types of learners, the promotion of reading involves the respect of each learner's individual pace in achieving this skill. The time factor is extremely important, in respect to when teaching is begun as well as to its development in time. Aside from their recognition of the fact that each individual must be psychologically ready to undertake systematic learning of reading, school systems or literacy teaching programmes should be organized in such a way as to enable schoolchildren or adults to progress at their own pace, and to have sufficient time for learning.

In many programmes, the first school year is devoted to the teaching of reading, and the following years to other types of learning for which reading-and-writing skills are necessary ; no thought is given to the fact that some children will not have had enough time to learn to read. This requirement creates many problems. At best, children repeat their first form, with all of the attendant drawbacks : too many children in the class, resulting in collective, non-differentiated teaching regardless of the pupils' initial level. Repeaters begin all over again, like the beginners, and often lose all interest in reading. In certain cases children cannot stay in the same form, and no specific programme is available for those who have not gained proficiency in reading, so that they lose any possibility of progressing within the school system.

Like children, adults must have enough time in order to learn, but it should be remembered that they are more or less disposed to learn depending on their everyday activities, family situation and environment. When organizing literacy teaching programmes for adults, appropriate schedules and paces of advancement should be planned, with intensive teaching courses at certain periods and ongoing support at other times, so as to maintain and consolidate attainments.

Post-literacy teaching

Post-literacy teaching is necessary so that people may maintain and improve what they have learned, and not relapse into illiteracy. It involves giving everyone easy access to books ; in other words, giving the possibility of reading. Such access is both physical and intellectual. It does not simply mean having books in one's possession, but disposing of mediators who facilitate access to books. In the perspective of learning to read rather than of teaching, pre-literacy teaching, literacy teaching and post-literacy teaching form a single whole, just as they do in policies for promoting reading.

Post-literacy teaching is particularly indispensable when the habit of resorting to written language is still fragile, and proficiency is shaky. It is through reading that reading skill is improved and becomes efficient. The need to read is not systematically acquired during learning. It develops when the act of reading is no longer so laborious as

to be dissuasive. The effort made to learn should be continued until reading becomes fluent. This is facilitated by the presence of appropriate, pleasurable texts, to which access is easy.

The notion of accessibility is essential, and applies to the text itself, with the choice of language, its level and style. It also applies to the content of the book : whether the subjects dealt with are interesting, their cultural adequacy and degree of complexity, how comprehensible they are, given common experience, etc. It also refers to the presentation, its make-up, whether the text is dense and the printing legible, the illustrations, cover, aesthetic qualities, etc. The problem of cost is involved, and is linked with the number of readers. There is also the question of time. Reading should accompany people in their existence, especially when it is not very present in their daily activities. It should go to them if they are not sufficiently motivated to take the initiative to go to it.

SOME EXPERIMENTS

Many experiments aimed at making reading a social practice and a factor contributing to development have been attempted around the world. They show that there is a specific solution to each illiteracy situation, and that everyone can contribute to the fight against illiteracy. They emphasize the fact that schools are not the only places concerned by the promotion of reading. Books should be a part of life, and not only present in schools and in the school learning process. They are no longer reserved for schoolchildren and the learned : they begin their career in MCH consultations, through health record books or cards. They attract readers to libraries of all sorts (in homes, in old trains), with the help of book-related activities such as story-telling hours.

Creating appropriate books

In Burundi, a competition for the creation of illustrated stories was launched in the secondary schools. The best were published in the local languages and in French.

In Senegal, people of all ages meet to learn to read, and collectively compose small albums of stories, which are distributed in the neighbouring villages.

In Sri Lanka, mothers copy albums by hand, for children.

Finding places to read

In Bamako (Mali), an old train is used as a library. In Cochabamba (Bolivia), an old bus is put to the same use. In the slums of Lima, Peru, books are housed in constructions made of concrete blocks, while book-huts made of local materials are built in Senegal.

In Japan, "bunkos", or house-libraries have been established. To compensate for the lack of municipal libraries, mothers have established miniature libraries in their homes, and open them several hours a day, and several days a week, for the neighbouring children. Some mothers organize a "story-telling hour" each Saturday, during which they read a story to the children.

"Home libraries" have been set up in Zimbabwe. Their development was spurred by a mother from Harare, who works in a literacy tea-

ching association. They attempt to make reading a familiar, family-related activity. Children participate in the elaboration of books : they collect stories told by their parents, or invent them.

Reaching out to readers

In France, "ACCES" is a project aimed at organizing encounters between babies and books. Story-tellers bring baskets of books to the waiting rooms of Mother and Child Health consultations (MCH) and to nurseries, day-care centres and leisure-time activities centres. They familiarize small children with books, and teach parents to develop a relationship with their children around books.

Library Documentation Centres (LDC) are a project in which the French Ministry of Education and local communities work hand in hand. These libraries, located in nursery and primary schools, are manned by volunteers (parents, unemployed people, etc), who help children to find their way among books, tell them stories, and introduce them to reading in a non school-related perspective.

In Thailand, story-tellers/promoters of literary masterpieces travel by bicycle to introduce and distribute books in contexts where they are rare.

In Venezuela, in a Caracas shantytown, a library truck is driven around to deliver albums. Mothers with little or no knowledge of reading participate in presenting them. They may then tell stories to the children. They develop their own taste for reading, along with their children's interest. Those who are able to read or have just learned may improve their competency or consolidate it at the same time.

In Sweden, books go out to meet readers wherever they are. In Stockholm, there are library-coffeehouses, but also libraries in shops : while parents do their shopping, children are taken care of in library-stopping off places. The waiting rooms of doctors in Helsinborg have been turned into miniature libraries.

Finding time to read

In England, in the framework of the fight against illiteracy, schools stop for fifteen minutes each day so that everyone may read a book of his or her own choosing. From the director to the cook, not to mention teachers and pupils, everyone reads !

These are of course only a few examples ; there are a great many initiatives, too many to be enumerated.

AVAILABLE ISSUES

• 1977
107 Food — nutrition — health and development
108/109* Primary health care
110 Family health and birth control

• 1978
111 Poliomyelitis
112 Sex education in traditional life in black Africa
113 Reflections on a strategy for education for health
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Attention and Performance XII. The psychology of reading. Lawrence Erlbaum Associates Publishers, 1987, Stitching International Association for the study of attention and performance, 707 p.

This volume in the "Attention and Performance" series presents a comprehensive state-of-the-art account of what is currently known about the psychology of reading. All the fondamental aspects of reading are considered : visual attention, visual feature analysis, visual masking, letter and word recognition, priming effects, eye movements in reading, phonological processing, working memory and reading, parsing, sentence comprehension, and text integration. The subject of reading is approached from a variety of different theoretical perspectives, including cognitive psychology, connectionism, neuropsychology and linguistics. This broad and comprehensive review will be of value for undergraduate and graduate teaching as well as research workers engaged in experimental or theoretical investigations of any aspect of the psychology of reading.

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LEARNING TO READ...
THE REASONS

1989 - N° 183

The United Nations have declared 1990 International Literacy Year. This attempt to raise close to one billion people, representing more than one fourth of the world's adult population, out of illiteracy, is clearly an enormous challenge. What does the future hold in store for unschooled children : will they be tomorrow's illiterate ? And will these figures be further increased by all those who, after a few years of primary schooling, have no opportunity to apply their knowledge in their everyday life ?

Approximately 49 % of women in developing countries are illiterate, as opposed to 28 % of men. At the same time, studies have clearly shown the influence of mothers' educational level on the health status and overall development of their children.

The industrialized countries are faced with this problem as well. Up to 10 % of their population is affected by functional illiteracy.

"Education for all" is a new leitmotif. Hopefully it will be an occasion to update education, to establish concrete, affordable and feasible programmes, and to achieve the active adhesion of all governments and other organizations. We should all give thought to this serious problem, and mobilize our resources... each at his or her own level.

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